

# An important role for

"If you're planning to invest in a computer, buy a real one, not a toy!" That's the kind of advice you're likely to get from a computer buff — but it may be a rather one-eyed opinion. The fact is that some of those "toys" can provide the means and the incentive for beginners in all age groups to learn the elements of computing in a pleasant and not-too-expensive way. It's worth thinking about.



## FORUM

Conducted by Neville Williams

In the wake of that rather positive assertion, I should perhaps qualify my earlier remarks in "Forum" for November '83, under the heading: "Do computers really have a place in the home?" While it contained a passing reference to the tuition value of a domestic computer, in the main, the article tended to question the relevance in the average home of a complete system: computer, monitor, printer, disk store and so on.

The message that came through was one of caution: think carefully before you talk yourself into spending a couple of thousand dollars; it could turn out to be a very poor investment, if you have no real use for it.

This time around, we are talking about a purely tuition role for a small computer within the family unit and an outlay of between \$100 and \$200 — a tiny fraction of the earlier figure.

Much the same qualification would apply to Peter Vernon's article in the June '84 issue: "Buying your first computer". He talks at length about basic computers, monitors, printers, memory stores, software, etc — all of it directed at would-be computer buffs who intend, ultimately, to acquire a complete system costing thousands of dollars.

I repeat: that is not what I have in mind in this article.

What follows was prompted in part by a letter to hand from a reader in Willunga, South Australia. He says:

Dear Sir,

*For some years I have been considering buying a personal computer, mainly so that my children can acquire some familiarity with this burgeoning discipline.*

*My worst suspicions were confirmed in your review of Ian Reinecke's book "Microcomputers" (EA April '84, page 110) in which I read ... "a vast difference between low cost machines ... compared with a machine costing several thousand dollars, which is needed if any*

*real use is to be obtained". And later ... "be better off (purchasing) a set of encyclopedias".*

*Contrast this with Dick Smith's latest catalog where the Editor of Personal Computer magazine is quoted as saying of Dick Smith's \$169 VZ200 ... "I'm certainly going to buy one".*

*Where then is the truth?*

*Are the cheap personal computers with, say, a 16K or 32K memory of any real use? How much use? Are people buying them only to play Pacman? Or are they a real instructional tool?*

*Your response will guide my buying decision.*

*A.T. (Willunga, SA).*

Understandably, correspondent A.R. is worried by the apparently opposite opinions expressed by author Ian Reinecke and the editor of "Personal Computer" magazine. One talks about buying a computer which the other would apparently consider to be of no real use (hence the heading to this article).

Reportedly, Ian Reinecke makes two particular points:

- For most serious applications, forget about low-cost "machines", intended primarily for playing electronic games. To be of any real use, the equipment would be quite costly, eg "several thousand dollars".
- Appropriate educational software is very limited: "the whole subject is really a joke".

I am not in a position to debate his opinion of available software but his observation about equipment is not at variance with what was said in "Forum" or in Peter Vernon's article, mentioned earlier.

If parents want to set up a computerised educational system in the home, it will need to approximate the system which students encounter at school/college; that means at least MicroBee or Apple or other such equipment, costing two or three thousand dollars all up. It would have little in common with "low-cost

machines ... mainly intended for playing games".

If we thus appear to support Ian Reinecke's ideas about equipment, where does the humble VZ200 fit in? Is it indeed a toy; of little real use?

In reality, the DSE VZ200 may not have been considered when Ian Reinecke's book was written and it may be in a class somewhat above his despised games-type "machines". Even so, it may still not have earned his approval, being considered too far down-market to form the heart of a serious system.

Many would share that view.

In fact, the VZ200 is not primarily a games machine. For sure, one can set up and play games on it, as with most other micros, but beyond that it offers, in terms of our own review in the July '83 issue: "colour, a reasonable amount of memory and a powerful Basic interpreter".

We concluded our review in the following terms:

*"If you want a computer to look after your share holdings, or for word processing, look elsewhere. If, on the other hand, you want a computer for playing games, for self-education, for learning about Basic and perhaps for writing your own programs, the VZ200 has one overwhelming advantage — the number of features for the price."*

At the time, a practical computer for under \$200 was a real price breakthrough comprising, as it did, the basic unit, power supply, cables and a comprehensive manual. Having in mind our own reaction, it is not really surprising that the Editor of "Personal Computer" should have decided that he had good use for just such an item — for the kind of secondary reason which we ourselves suggested.

If the reasons were valid at \$199, they would be attractive at the subsequent price of \$169 and positively compelling at the latest figure of \$99.

As a matter of interest, I questioned



# 'useless' small computers!

## From the Commonwealth Employment Service:

Dear Mr Simpson,

I was impressed by Neville Williams' "Forum" column in the April '84 issue of *Electronics Australia*: "What do you do when you can't find a job?" I would like to include the article in information available to clients of the Career Reference Centre.

The Centre, which is operated by the Commonwealth Department of Employment and Industrial Relations, provides a free occupational in-

formation and vocational training information service.

My intention is to include clearly sourced photocopies of the article in our job information folders on occupations related to electronics and job seeking skills.

I request your permission to photocopy the article for the purposes described.

Paul Mitchell,  
Manager, Sydney  
Career Reference Centre.

Ike Bain, Managing Director of Dick Smith Electronics, as to the reason for such a dramatic price reduction. He nominated two factors: economy of scale in manufacture and fierce worldwide competition between computer makers.

Hopefully, A.R. of Willunga should by now have glimpsed a glimmer of light at the end of the tunnel.

If he has in mind a complete computer educational system, comparable with those in schools and colleges, then it is going to cost him "X" thousand dollars, as per "Forum", Peter Vernon and Ian Reinecke.

But I don't really read that requirement into his words: "so that my children can acquire some familiarity with this burgeoning discipline".

If his prime objective is to create a familiarity with computers at a family level, and to dispel the mystique which faces the uninitiated, young and old, then he can accomplish that and move on to a working knowledge of programming for a much more modest figure; like \$99 for example!

In fact, that's exactly what I want to talk about from here on.

On two separate occasions, recently, I have been the involuntary witness to a family argument — sorry, discussion — during which the children were trying to convince their father that he should buy a computer for them to use at home:

"But, Dad, you can get one for less than \$200 ... go on Dad!" (This was before the most recent price reductions.)

In both cases, the father insisted that there was more to it than that. You couldn't do much with just a keyboard and, by the time they had bought all the stuff to go with it, he'd be up for nearer \$2000! Right now, he didn't have that sort of money to spare!

To see kids of high school age arguing for a computer was no surprise, because computers are now a part of the high school scene, but the 7/8-year-olds were joining in with hardly less conviction. Nor was there any special mention of electronic games. It was simply: "buy a computer, Dad!"

Watching the performance, I couldn't escape the impression that the kids were really asking for a contemporary learning tool, much as in other days, when we wanted our own slate and slate pencil (!), our own box of water colours, our own drawing instruments, our own slide rule, our own calculator. Now they want access to their own computer and the opportunity to gain an easy familiarity with the machine that, more than anything else, typifies their kind of world.

Perhaps they don't need to store or print out, to process words or to keep accounts; that can come later. Maybe their first and urgent requirement is to come to terms with the keyboard, with computer language and procedures; to do a few exercises, work out a few problems, observe some basic graphics and play a few games routines, all as part of the learning process.

Nor is the need to learn unique to children. Adults also must adapt to the world of keyboards which has been created by their own generation. Here I could quote Professor Brian Garner, head of computing at Deakin University in Geelong (Vic) and Chairman of the recent Computer Data 84 Conference in Sydney:

*"Parents will have to learn about new technology and how to use it or they will be left behind by their children."*

*"Parents should spend more time with children and share their involvement with computers."*

If they fail to do so, Professor Garner warned, stress will tend to develop between computer-literate children and parents who have no understanding of the new technology.

Seeking to probe the computer-awareness of present-day high school children, I have been asking a few questions on the subject lately, whenever the opportunity presented itself.

An English subject mistress professed to know little about computers but had her own reason to be impressed: students who had access to home computers, she said, and especially to word processing facilities, had re-developed the long-lost art of checking their work before handing it in!

"It has changed their attitude to detail. They hand in better work and are rewarded by higher marks."

A maths master from another high school said that students generally were aware of computers but actual knowledge of them ranged all the way from minimal to those who had earned the right of access to school computers without teacher supervision.

"Some of these kids are really good."

Could he see a role for a simple computer in the home, purely to allow children and parents alike to learn the rudiments of the subject?

"Most decidedly!"

Another high school maths teacher obviously shared these opinions but added that he did not much mind if students spent some of their free time setting up their own games routines. Games or no, they were still learning how to program, and doing so with added incentive and concentration.

The manager of an electronics store confirmed my teach-yourself ideas in a moment of personal frankness:

"When I accepted this job, I was literally scared of computers. But I took a small one home and spent a couple of weeks working through the manual. I'm still a beginner compared with some of the kids that come in here after school but, at least, I now understand what they're on about!"

As a matter of further interest, I posed the question to an executive of Dick Smith Electronics:

"Why do people buy your VZ200?"

"For all sorts of reasons", was the reply "but we tend to emphasise its value as a means of self tuition. Look at our catalog:

"Getting left behind in the computer race? Here's the solution ...



"Bring your kids into today's technology ...

"Easy to read manuals ...

"Learn fast ... and so on".

Never a company to miss a trick, DSE responded further to my question with the invitation to try it for myself, and with a carton containing a VZ200 on loan, along with extra memory module, cassette recorder/player, printer, interface, typical software tapes and assorted manuals.

I was happy to take up the invitation but I left the peripherals in the box, primarily because I wanted to sample a tuitional exercise involving just the basic \$99 computer and, at most, one or two of the supplementary manuals. Such an exercise would not be entirely fictional, because I had never before handled the VZ200 and literature and, unlike Peter Vernon and Co, I tend to get rather rusty between spaced-out exposures to computer whatnots.

What were my reactions?

While the VZ200 has a keyboard conforming nominally to QWERTY (typewriter) layout, it uses "rubber" pads rather than full-travel keys and provides for upper-case (capital) letters only. There is no space bar, as such, the function being handled by a space key at the lower right-hand corner.

**Teach yourself to drive the VZ200 and you'll have little difficulty in adapting to other Basic-language micros**

The pads present no great problem but one has to overcome the tendency to type as if normal lower and upper case letters were available — and in the process, tapping the lower lip of the case instead of the non-existent space bar!

While these very characteristics limit the potential use of the VZ200 with a full-scale system, they are of little consequence at a tuitional level. More importantly, the keys give user access to a powerful — and normal — programming facility in computer Basic language, plus colour graphics, and more, if advantage is taken of it. Teach yourself to drive the VZ200 and you'll have little difficulty in adapting to other Basic-language micros.

Packaged with the VZ200 is a small user manual, a booklet containing 20 programs, a demonstration cassette, and a 166-page instructional manual produced by the manufacturers in collaboration with Jamieson Rowe, the former editor of this magazine. The manual begins

with the question "What is a computer?" and proceeds on a step-by-step learn-while-you-do-it basis to introduce simple calculator functions, a wide range of computer routines, colour graphics and "music", with appropriate references to the possible use of an ancillary cassette deck and printer.

Other instructional manuals available for the VZ200 include "Introduction to Computing" by Toni Louise Henson and "Getting Started" by Tim Hartnell and Neville Predebon. Both are written in friendly, casual style which helps turn the learning experience into relaxation rather than a chore. Either or both can be used in conjunction with the manufacturer's manual to pick one's way through the various keyboard routines.

If you ultimately decide to spend \$99 and to repeat the exercise, your memory may or may not cooperate as you are introduced progressively to the special significance of certain punctuation marks, instructions like BREAK, RETURN, GOTO, GOSUB, etc, and to statements like IF-THEN, FOR-TO-NEXT and so on.

If you can remember them, fine! But don't get discouraged if you seem to keep on forgetting them; having to rely on the manuals or your own scribbled notes. It's not supposed to be a test of memory but an exercise in reading and doing — and seeing it happen for you, in your own home, on your own computer.

More importantly, as it does so, the "faze" and the mystique will begin to drain away and interest will quicken. You may even feel somewhat miffed when the family wants their TV set back to watch the news or "Country Practice". Maybe you will have just accomplished your first bit of solo programming by turning Toni Henson's "What Number" exercise into a genuine random number repetitive game!

If you want to pursue the exercises to a genuine facility at the keyboard, two complete books of programs are available for the VZ200, before venturing further afield. But, by this time, you may have developed into a computer nut, anyway!

You may never reach that stage but that's really of secondary importance in the present context. What matters is that, somewhere along the line, you will have ceased to be afraid of keyboards and computers. You will have had the experience of driving one and come to realise that the essential difference between fear and facility is time and practice.

For you, and possibly for other members of your family, the exercise will

have been justified.

At least, that's the way I saw things, following my own simulated exercise.

Is the DSE VZ200 the only option by way of an inexpensive tuitional computer?

No it isn't.

While preparing this article, I paid a visit to the local Tandy store and posed the question:

"What's your answer to the Dick Smith VZ200 as a stand-alone tuitional computer?"

**What matters is that, somewhere along the line, you will have ceased to be afraid of keyboards and computers**

The attendant's reponse was to direct my attention to something I had already noticed on entering: a display featuring the Tandy TRS-80 MC-10 personal computer, marked down from its original price of \$179.95 to \$99.95.

Why the huge reduction? Is it being discontinued? A clearance sale?

No, I was told, that would be the continuing price, thanks to worldwide competition in the computer industry.

The Tandy MC-10 is physically smaller than the VZ200, with less memory (4K) and probably somewhat less versatile programming. But it does have a space bar and keypads with agreeable tactile response, plus output ports for tape deck and printer. It comes complete with mains power supply, cables and instruction manual and, while there is less other off-the-shelf literature, Tandy told us that it is supported by an independent users club.

From what we could judge by looking at the package in the store, it too would offer a useful tuitional facility for under \$100.

In the same week that we visited the store, Tandy were offering \$100 off the price of their standard keyboard models, bringing the price of their base model to a temporary \$249. That would probably represent a greater outlay than many would be prepared to write off as a tuitional exercise but it does indicate the way that computer prices have fallen during the last 12 months.

Who knows what readers may be able to pick up by way of a tuitional computer, over and above the VZ200 and the MC-10? Just make sure, however, that it offers adequate BASIC language facilities, certainly not less than 4K of built-in memory, a mains power supply,



an RF converter to feed an Australian standard TV receiver, and a good tutorial manual appropriate for the particular model. Colour graphics and "music" are less important but, after all, they are part of the familiarisation process.

What of the peripherals you can buy to go with the VZ200 or MC-10: extra memory, B & W or colour monitor, cassette deck, printer etc? To this point, we have assumed that learners will use an available TV receiver as a monitor and, possibly, an available cassette deck, thus avoiding any extra outlay.

After a few weeks, or months, and having become familiar with the rudiments of computing, you will be in a better position to decide which way you want to go: avoid further expense, add elementary peripherals to an elementary keyboard, or plan towards a serious system for whatever purpose.

If the last named is your choice, then best you consider that your elementary lessons have come to an end. Turn back to Peter Vernon's article and start reading, thinking, acting and spending like a genuine computer buff!

### Job opportunities

At this point, I would like to revert to the subject of job opportunities in the electronics industry for young people, as discussed in "Forum" for April '84. Perhaps it may not be as unrelated as it may seem, because we have just been discussing a way in which some young people may be able to add to their potential job skills.

Among the personal observations, phone calls and letters on the subject of youth unemployment, it was gratifying to receive the one in the accompanying panel, from the Sydney Career Reference Centre of the CES. It might suggest that some of the remarks in the April "Forum" were along helpful lines, criticism notwithstanding.

As might be imagined, Editor Leo Simpson was happy to grant permission for the article to be reprinted, with due acknowledgement to the source, and I guess that the same release of copyright would apply to other organisations or educational groups who may find the particular article helpful.

In fact, some correspondence on this subject is still outstanding but there is a limit to what can reasonably be accommodated in three pages or less, per month. Unfortunately, while the subject may become tedious, it certainly won't lose its topicality.

Even the most optimistic of politicians wouldn't try to tell us that!

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